## **CLAIM AMENDMENTS**

1. (ORIGINAL) A non-volatile data storage interface unit, for use in an information distribution system configured to distribute information assets stored upon a non-volatile data storage to users via a dynamic data transmission path including a cell-based switching fabric, the interface unit comprising:

a cell transceiver connectable to a cell-based switching fabric facilitating transfer of data cells between the non-volatile data storage interface unit and the cell-based switching fabric, the cell transceiver comprising:

a cell transmitter coupled to an output of the non-volatile data storage interface unit and comprising a raw data to cell data formatting circuit, and

a cell receiver coupled to an input of the non-volatile data storage interface unit and comprising a cell data to raw data formatting circuit; and

a first non-volatile data storage controller interposed between the cell transceiver and the non-volatile data storage, the non-volatile data storage controller comprising circuitry for:

retrieving and forwarding raw data from the non-volatile data storage to the cell transmitter, and

receiving and storing raw data from the cell receiver to the non-volatile data storage.

- 2. (ORIGINAL) The non-volatile data storage interface unit of claim 1 further comprising a data buffer controller coupled to the first non-volatile data storage controller, the data buffer controller comprising an interface to random access memory for storing at least raw data retrieved from the non-volatile data storage by the first non-volatile data storage controller prior to transfer to the cell transmitter, thereby providing a data transmission rate smoothing interface between the non-volatile data storage and the cell transmitter.
- 3. (ORIGINAL) The non-volatile data storage interface unit of claim 2 wherein the data buffer controller further comprises an interface to random access memory for storing raw data to be stored on the non-volatile data storage.

- 4. (ORIGINAL) The non-volatile data storage interface unit of claim 1 wherein the cell-based switching fabric is an ATM switching fabric.
- 5. (ORIGINAL) The non-volatile data storage interface unit of claim 1 wherein the cell-based switching fabric is a connection-oriented fabric.
- 6. (ORIGINAL) The non-volatile data storage interface unit of claim 1 wherein the cell transmitter is coupled to a plurality of non-volatile data storage controllers, including the first non-volatile data storage controller.
- 7. (ORIGINAL) The non-volatile data storage interface unit of claim 1 wherein the cell transmitter comprises circuitry for generating a header for a cell comprising raw data retrieved from the non-volatile data storage.
- 8. (ORIGINAL) The non-volatile data storage interface unit of claim 7 wherein the circuitry for generating a header includes a CRC generator.
- 9. (ORIGINAL) The non-volatile data storage interface unit of claim 8 wherein the circuitry for generating a header includes an HEC generator.
- 10. (ORIGINAL) The non-volatile data storage interface unit of claim 1 wherein the cell receiver comprises circuitry for processing a header for a cell received from the cell-based switching fabric.
- 11. (ORIGINAL) The non-volatile data storage interface unit of claim 10 wherein the circuitry for processing a header includes a CRC accumulator.
- 12. (ORIGINAL) The non-volatile data storage interface unit of claim 11 wherein the circuitry for processing a header includes an HEC accumulator.

13. (ORIGINAL) A method for transmitting data within an information distribution system configured to distribute information assets stored upon a non-volatile data storage to users via a dynamic data transmission path including a cell-based switching fabric, the method comprising, in any order, the steps of:

receiving, by a cell receiver, a data storage asset read command from the cell-based switching fabric;

passing, by the cell receiver to a non-volatile data storage controller, the data storage asset read command;

retrieving, from a non-volatile data storage controlled by the non-volatile data storage controller, raw data corresponding to the data storage asset read command;

first transmitting the raw data to a cell transmitter circuit;

packaging, by the cell transmitter circuit, the raw data within cells for transmission on the cell-based switching fabric; and

second transmitting, by the cell transmitter circuit, the cells to the cell-based switching fabric.

- 14. (ORIGINAL) The method of claim 13 further comprising the step of: storing, within a memory buffer prior to the first transmitting step, at least the raw data retrieved from the non-volatile data storage by the non-volatile data storage controller prior to transfer to the cell transmitter, thereby providing a data transmission rate smoothing interface between the non-volatile data storage and the cell transmitter.
- 15. (ORIGINAL) The method of claim 13 wherein the second transmitting step comprises transmitting the cells to an ATM switching fabric.
- 16. (ORIGINAL) The method of claim 13 wherein the cell-based switching fabric is a connection-oriented fabric.

- 17. (ORIGINAL) The method of claim 13 wherein the packaging step comprises generating, by circuitry within the cell transmitter circuit, a header for a cell comprising raw data retrieved from the non-volatile data storage.
- 18. (ORIGINAL) The method of claim 17 wherein the generating a header step includes generating a CRC value for a cell.
- 19. (ORIGINAL) The method of claim 18 wherein the generating a header step includes generating an HEC value for a cell.
- 20. (ORIGINAL) A method for receiving data within an information distribution system configured to communicate information assets from a non-volatile data storage to users via a dynamic data transmission path including a cell-based switching fabric, the method comprising, in any order, the steps of:

receiving, by a cell receiver connected to the cell-based switching fabric, a data storage asset write command from the cell-based switching fabric;

passing, by the cell receiver to a non-volatile data storage controller connected to the cell receiver, the data storage asset write command;

receiving, by the cell receiver, data cells specifying a hard disk address and raw data; extracting, by the cell receiver, the raw data from the data cells;

transmitting, by the cell receiver, the raw data to the non-volatile data storage controller; and

storing, by the non-volatile data storage controller connected to the non-volatile data storage, the raw data to the non-volatile data storage.

- 21. (ORIGINAL) The method of claim 20 further comprising the step of: first processing, by the cell receiver, a header for a cell received from the cell-based switching fabric.
- 22. (ORIGINAL) The method of claim 21 wherein the first processing step comprises processing header data by a CRC accumulator.

- (ORIGINAL) The method of claim 22 wherein the first processing step 23. comprises processing header data by an HEC accumulator.
- 24. (ORIGINAL) The method of claim 20 further comprising the step of: buffering, by the non-volatile data storage controller, the raw data from the data cells prior to the storing step.